What Is Claimed Is:

1. A gearing comprising a rotatable drive element (100) and a rotatable output element (200), wherein

- at least one force-transmission means (101, 102) is arranged at an end face of the drive element (100) along at least one spiral line; and
- force-transmission means (201, 202) are arranged at an end face of the output element (200) along a circumferential line; and

a torque is transmitted by the reciprocal action of these force-transmission means (101, 102; 201, 202) from the drive element (100) to the output element (200), this torque effecting a rotary motion in the output element (200), so that its frequency of rotation is lower than the frequency of rotation of the drive element (100).

2. The gearing as recited in Claim 1, wherein the spiral line is described by the equation

$$r = a \cdot \varphi$$

r = the radius of the spiral and a a constant positive number and φ the pivoting angle of a radial beam originating from the pole of the spiral line.

3. The gearing as recited in one of the preceding claims, wherein the number of force-transmission means (201, 202) of the output element (200) is greater than the effective number of threads of the spiral line of the drive element (100).

4. The gearing as recited in one of the preceding claims, wherein the greatest distance between the axis of rotation (203) of the output element (200) and the outer contour (207) of the force-transmission means (201, 202) of the output element (200) is smaller than the distance between the axes of rotation (103; 203) of the drive element (100) and the output element (200) in the region of the output element (200).

5. The gearing as recited in one of the preceding claims, wherein the force-transmission means (101, 102; 201, 202) of the drive element (100) and/or the output element (200) are permanent magnets.

6. The gearing as recited in Claim 5, wherein the torque is transmittable in a contactless manner via repelling magnetic forces, in particular.

7. The gearing as recited in Claim 5 or 6, wherein the permanent magnets (101, 102; 201, 202) of the drive element (100) and/or the output element (200) are arranged on a carrier body (106, 206) whose material has a relative permeability that is greater than 10, in particular greater than 100.

8. The gearing as recited in Claims 5, 6 or 7, wherein a layer (104) is applied to at least one permanent magnet (101, 102) of the drive element (100) on the side facing the output element (200), the layer (104) being made of a material having ferromagnetic properties.

9. The gearing as recited in Claims 5 through 8, wherein the permanent magnets of the drive element (100) are arranged on a plurality of spiral lines and the permanent magnets have different bar heights (H, h).

10. The gearing as recited in Claims 5 through 9, wherein, in particular at the output element (200), additional force-transmission means (204) are arranged via which a torque is able to be transmitted in a contacting manner from the drive element (100) to the output element (200).

11. The gearing as recited in Claim 10, wherein the torque is able to be transmitted by the additional force-transmission means (204) from the drive element (100) to the output element (200) both in a contacting and a non-contacting manner.

12. The gearing as recited in one of Claims 5 through 11, wherein a magnetically screened partial region as well as a non-screened partial region is arranged in the region between the drive element (100) and the output element (200).

13. The gearing as recited in Claim 12, wherein the screening is implemented by a ferromagnetic, in particular a magnetically soft plate (300) and the magnetically unscreened partial region is a window (301) in this plate (300).

14. The gearing as recited in one of the preceding claims, wherein force-transmission means (101, 102) of the drive element (100) are designed as groove, and force-transmission means (201) of the output element (200) are designed as recesses in which ball elements (208) are stored.

15. A rotary encoder having one or a plurality of gear steps, wherein at least one of the gear steps is made up of a rotatable drive element (100) and a rotatable output element (200), and

- at least one force-transmission means (101, 102) is arranged at an end face of the drive element (100) along at least one spiral curve; and
- force-transmission means (201, 202) are arranged at an end face of the output element (200) along a circumferential line; and

a torque is transmitted by the reciprocal action of these force-transmission means (101, 102; 201, 202) from the drive element (100) to the output element (200), this torque effecting a rotary motion in the output element (200), so that its frequency of rotation is smaller than the frequency of rotation of the drive element (100).

16. The rotary encoder as recited in Claim 15, wherein the output gear (200) is arranged between the drive gear (100) and a wafer (414).

17. The rotary encoder as recited in Claim 15 or 16, wherein the shortest distance between the axis of rotation (103) of the drive gear (100) and point P at which the output gear (200) is supported, is not greater than one-half of the diameter of the body (106) of the drive gear (100).

18. The rotary encoder as recited in Claim 15, 16 or 17, wherein the shortest distance between the axis of rotation 103 of the drive gear 100 and point P at which output gear 200 is supported, is not greater than one-half of the diameter of the code disk 402.